LISTING OF THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Previously presented) Method for manufacturing ceramic parts with a certain porosity by sintering using microwaves, the materials to be sintered being arranged in a vessel, said method comprising:

introducing, via said microwaves, sintering energy into the materials to be sintered via electromagnetic waves in the range of vacuum wavelengths between 5 cm – 20 cm in multimode having an electromagnetic power of up to one kilowatt, wherein, besides being built from primary materials for the structure of the vessel, the vessel is built from a secondary material which comprises at least one material selected from the group consisting of: non-metallic materials, para-magnetic materials, ferro-magnetic materials and antiferromagnetic materials.

2. (Previously presented) Method of claim 1, wherein said wavelength range of the electromagnetic waves is between 11-13 cm.

3. (Previously presented) Method of claim 1, wherein said ceramic parts have a porosity of between 0-50 percent by volume.

4. (Previously presented) Method of claim 3, wherein said porosity is between 10 – 30 % by volume, the porosity being controllable through the temperature pattern.

5. (Previously presented) Method of claim 1, wherein said ceramic parts are infiltrated with a glass material to produce the final strength.

6. (Previously presented) Method of claim 1, wherein said ceramic parts are sintered to a defined final density of at least 80% of the theoretical density of the respective material.

7. (Previously presented) Method of claim 1, wherein said ceramic parts are dental restorations.

8. (Previously presented) Method of claim 7, wherein said dental restorations are veneered using a glass material.

9. (Previously presented) Method of claim 1, wherein said material is selected from the group consisting of: Al_2O_3, Spinell, Ce- or Y-stabilized ZrO_2, and mixtures thereof.

10. (Previously presented) Method of manufacturing full ceramic dental restorations from dental ceramic masses with a certain porosity by sintering using microwaves, said ceramic masses that are to be sintered being arranged in a vessel, said method comprising:

introducing, via said microwaves, sintering energy into said ceramic masses to be sintered via electromagnetic waves in the range of vacuum wavelengths between 5 cm – 20 cm in multimode having an electromagnetic power of up to one kilowatt, wherein, besides being built from primary materials for the structure of the vessel, the vessel is built from a secondary material which comprises at least one material selected from the group consisting of: non-metallic materials, para-magnetic materials, ferro-magnetic materials and antiferromagnetic materials.

11. (Currently amended) Vessel for manufacturing ceramic parts with a certain porosity by sintering using microwaves by the method of claim 1, said vessel comprising a primary and a secondary material, wherein said secondary material comprises at least one material selected from the group consisting of: a non-metallic material, a para-magnetic material, a ferro-magnetic material and an antiferromagnetic material.

12. (Previously presented) Vessel of claim 11, wherein said secondary material is zincochromite (ZnCr2O4) with 0-99 percent by weight of zincite (zinc oxide ZnO).

13. (Previously presented) Vessel of claim 11, wherein, to increase the dense sintering temperature, the secondary material further comprises a refractory non-metallic material having a high transparency for super high frequency waves in a wide temperature range.

14. (Previously presented) Vessel of claim 13, wherein said refractory non-metallic secondary material having a high transparency for super high frequency waves is zinc oxide (ZnO).

15. (Previously presented) Vessel of claim 11, further comprising a receiving portion for receiving said primary and secondary material to be sintered, said secondary material being provided at least partly around the receiving portion.

16. (Previously presented) Vessel of claim 15, wherein said receiving portion is surrounded by at least one, secondary material element.

17. (Previously presented) Vessel of claim 11, wherein said secondary material is surrounded by said primary material.

18. (Previously presented) Vessel of claim 15, wherein said secondary material extends over the entire height of said receiving portion.

19. (Previously presented) Vessel of claim 16, wherein said secondary material element is rod-shaped.

20. (Previously presented) Vessel of claim 16, wherein said secondary material element is divided regularly around the receiving portion.

21. (Previously presented) Vessel of claim 16, wherein said secondary material element is encapsulated with said primary material.